

Name Key

Date _____

Review 6.1-6.3.

Do the following problems from the book. p337-338 #s 11, 12, 13 (follow directions below), 15-17, 20, 22, 24-26, 28, 29.

11. Graph the equation from the book. Label and graph everything listed below.

16-32 + 7 \checkmark $(4, -9)$ $f(x) = x^2 - 8x + 7$

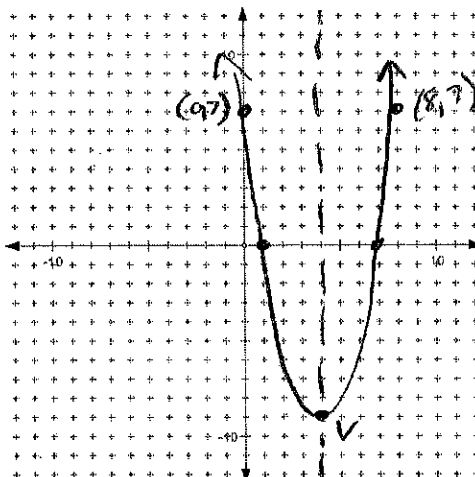
Axis of Symmetry $x = 4$ $\frac{+8}{2}$

y-intercept $(0, 7)$

Mirrored point $(8, 7)$

Another point $(1, 0)$ $1 - 8 + 7$

Mirrored point $(7, 0)$



12. Graph the equation from the book. Label and graph everything listed below.

\checkmark $(3, 9)$ $f(x) = -2(x^2) + 12x - 9$

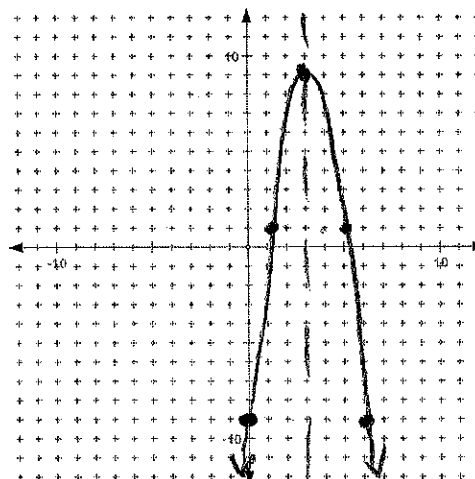
Axis of Symmetry $x = 3$

y-intercept $(0, -9)$

Mirrored point $(6, -9)$

Another point $(1, 1)$

Mirrored point $(5, 1)$



13. Graph the equation from the book. Label and graph everything listed below.

\checkmark $(2, 1)$ $f(x) = -x^2 - 4x - 3$

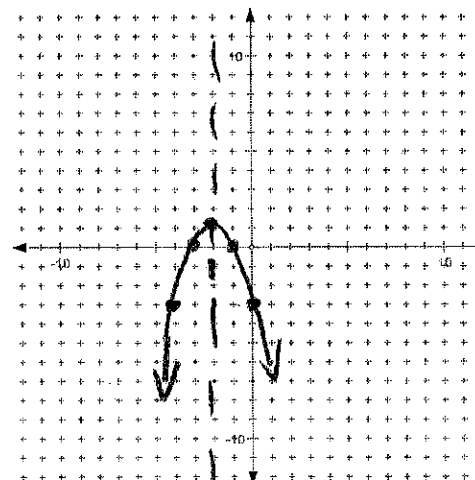
Axis of Symmetry $x = -2$

y-intercept $(0, -3)$

Mirrored point $(-4, -3)$

Another point $(-1, 0)$

Mirrored point $(-3, 0)$



15-17 20, 22, 24-26, 28, 29

15. $f(x) = 4x^2 - 3x - 5$

(Min) $\frac{3}{8}$
 $4(\frac{3}{8})^2 - 3(\frac{3}{8}) - 5$
 $= -\frac{89}{16}$

16. $f(x) = -3x^2 + 2x - 2$

$\frac{-2}{2(-3)} = \frac{1}{3}$
 Max
 $-\frac{5}{3}$
 $-3(\frac{1}{3})^2 + 2(\frac{1}{3}) - 2$

17. $f(x) = -2x^2 + 7$

(Max; 7) $\frac{0}{-4} = 0$
 $-2(0)^2 + 7$

20. $2x^2 + x - 3 = 0$

$\{1, -\frac{3}{2}\}$

22. $-3x^2 - 6x - 2 = 0$

$\{-1.577, -.423\}$

(24) $x^2 - 4x - 32 = 0$
 $(x+4)(x-8) = 0$
 $x = -4 \quad x = 8$
 $\{-4, 8\}$

25. $3x^2 + 6x + 3 = 0$

$3x^2 + 3x + 3x + 3$
 $3x(x+1) + 3(x+1) = 0$
 $(3x+3)(x+1)$

$x = -1$

$\{-1\}$

28. $25x^2 - 30x + 9 = 0$

$(5x-3)^2 = 0$

$x = \frac{3}{5}$

$\{\frac{3}{5}\}$

~~$\frac{9}{3} \times \frac{3}{6}$~~

(26) $5y^2 = 80$
 $y^2 = 16$
 $y = \pm 4$

$\{-4, 4\}$

(29) $6x^2 + 7x - 3 = 0$

$6x^2 + 9x - 2x - 3 = 0$
 $3x(2x+3) - 1(2x+3) = 0$
 $(3x-1)(2x+3) = 0$
 $\{\frac{1}{3}, -\frac{3}{2}\}$

~~$\frac{-18}{9} \times \frac{-2}{7}$~~